

EQUIPMENT LISTS

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1	EA	SP	BASE MOUNTED LOCAL CABINET (SIZE 5) LESS DETECTION EQUIPMENT WITH 8 PHASE ASC II CONTROLLER WITH TELEMETRY AND OPTICOM PRE-EMPTION MODULE
38	SF	813	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: - 1 EACH R6-1L (36" X 12")-POLE MOUNT - 1 EACH R6-1R (36" X 12")-POLE MOUNT - 1 EACH R6-1L (36" X 12")-GROUND MOUNT - 1 EACH R6-1R (36" X 12")-GROUND MOUNT - 1 EACH R10-11b (24" X 24")-MAST ARM MOUNT - 1 EACH D3-2 (W. Franklin St) (VAR." X 16")-MAST ARM MOUNT - 1 EACH D3-2 (N. Prospect St) (VAR." X 16")-MAST ARM MOUNT

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
5	CY	205		TEST PIT EXCAVATION
9	CY	206		REMOVAL OF EXISTING SIDEWALK
70	LF	SP 555		24 INCH WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
70	LF	SP		REMOVE EXISTING PAVEMENT MARKINGS--ANY WIDTH
700	SF	610		4 INCH CONCRETE SIDEWALK
1	EA	816		INSTALL CONTROLLER AND CABINET--BASE MOUNT
32	SF	813		INSTALL OVERHEAD SIGN
6	SF	813		INSTALL GROUND MOUNTED SIGN
20	LF	812		FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 INCH X 4 INCH
4	EA	SP		FURNISH AND INSTALL 12 INCH 1 WAY 3 SECTION (R, Y, G) SIGNAL HEAD HAVING PROPER ADJUSTABLE MAST ARM BRACKET, AND TUNNEL VISORS--PAINTED BLACK
2	EA	SP		FURNISH AND INSTALL OPTICOM DETECTOR EYE--MODEL 521
5	EA	811		FURNISH AND INSTALL ELECTRICAL HANDHOLE
7	CY	801		FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
110	LF	805		FURNISH AND INSTALL 2" SCHEDULE 40 RIGID PVC CONDUIT--TRENCHED
15	LF	805		FURNISH AND INSTALL 3" SCHEDULE 40 RIGID PVC CONDUIT--TRENCHED
50	LF	805		FURNISH AND INSTALL 4" SCHEDULE 40 RIGID PVC CONDUIT--TRENCHED
80	LF	805		FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT--SLOTTED
1	EA	807		FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
1	EA	SP		FURNISH AND INSTALL 21-FOOT STEEL POLE WITH A SINGLE 38-FOOT MAST ARM--PAINTED GREEN
1	EA	SP		FURNISH AND INSTALL 21-FOOT STEEL POLE WITH A SINGLE 50-FOOT MAST ARM--PAINTED GREEN
2	EA	SP		CUT, CLEAN AND CAP TRAFFIC SIGNAL STRUCTURE
1	EA	SP		AS-BUILT FOR TRAFFIC SIGNAL
3	EA	804		FURNISH AND INSTALL GROUND ROD--3/4 INCH DIAMETER X 10-FOOT LENGTH
200	LF	810		FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
150	LF	810		FURNISH AND INSTALL ELECTRICAL CABLE--1 CONDUCTOR (NO. 4 AWG -- THHN/THWN)
450	LF	810		FURNISH AND INSTALL ELECTRICAL CABLE--5 CONDUCTOR (NO 14 AWG)
400	LF	810		FURNISH AND INSTALL OPTICOM M-138 DETECTOR CABLE
2	EA	SP		REMOVE AND DISPOSE OF EXISTING FOUNDATION 12" BELOW GRADE
1	LS	SP		DELIVERY OF SALVAGED EQUIPMENT
1	LS	SP		REMOVE AND DISPOSE OF EXISTING EQUIPMENT
1	LS	SP		REMOVAL OF EXISTING SIGNAL EQUIPMENT TO BE SALVAGED
	QUANTITY	UNIT		DESCRIPTION
1	EA			CONTROLLER AND CABINET
1	EA			OPTICOM DETECTOR EYE

NOTE: ALL EQUIPMENT AND/OR MATERIALS TO BE REMOVED BY THE CONTRACTOR, BUT NOT LISTED BELOW, SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

NOTE: EXISTING RIGHT-OF-WAY BASED ON INFORMATION PROVIDED BY THE CITY OF HAGERSTOWN.

MDOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

LOG ML 21W04035.83

US 40 West (West Franklin St.)
at North Prospect St.

COUNTY: WASHINGTON

DRAWN BY: M. GESELL

DES. BY: J. LAWRENCE

CHK. BY:

DATE: 05/30/97

SCALE: 1" = 20'

F.A.P. NO.

STPG-218-1(7)E

S.H.A. NO.

WA9535185

TS.

. NO.

3676

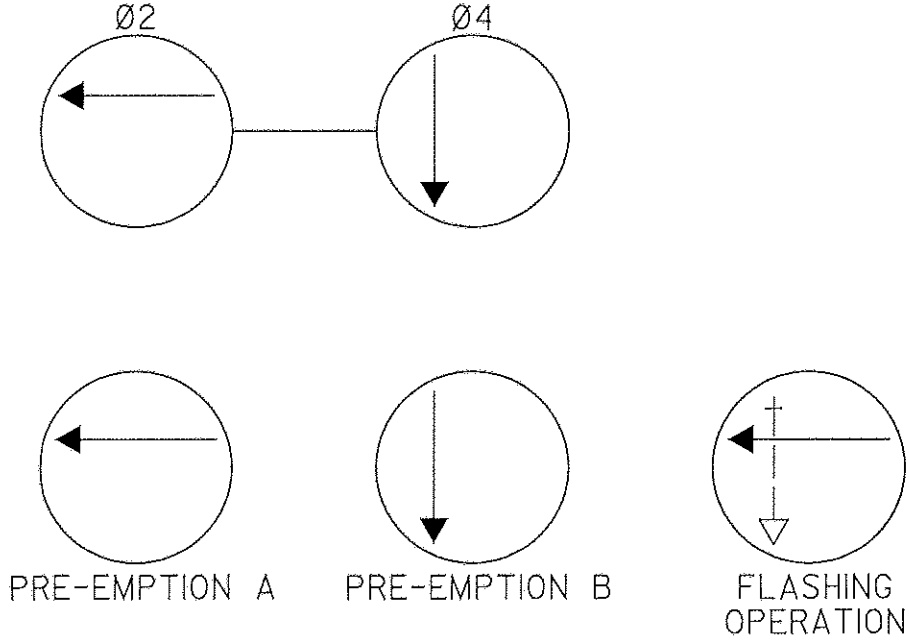
SHEET NO.

10 OF 66

PHASING DIAGRAM

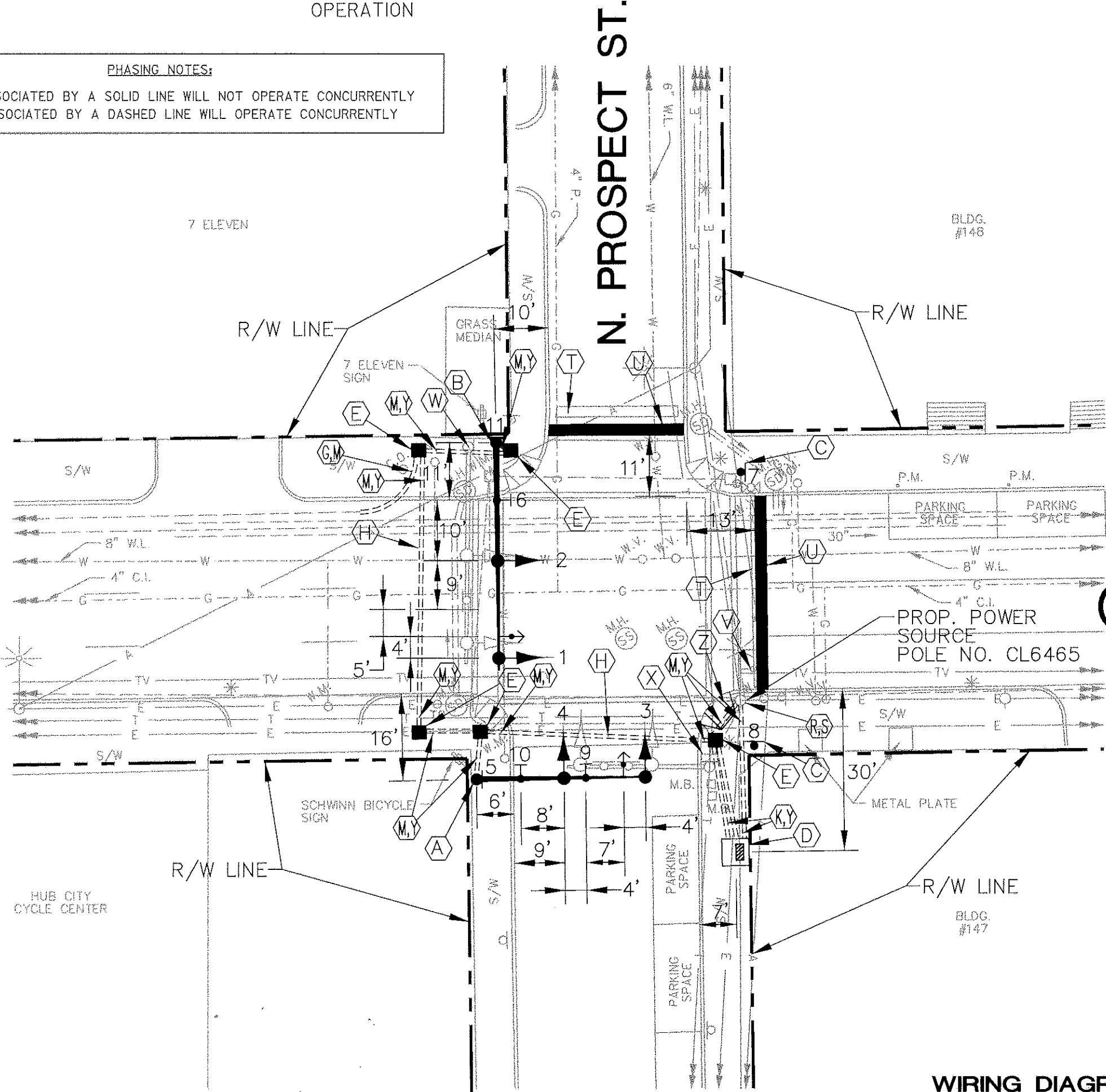
	1	2	3	4
	R Y G	R Y G	R Y G	R Y G
PHASE 2	G	G	R	R
2 CHANGE	Y	Y	R	R
PHASE 4	R	R	G	G
4 CHANGE	R	R	Y	Y
PRE-EMPTION A	G	G	R	R
A CHANGE	Y	Y	R	R
PRE-EMPTION B	R	R	G	G
B CHANGE	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R

NEMA PHASING



PHASING NOTES:

- PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY
- PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY

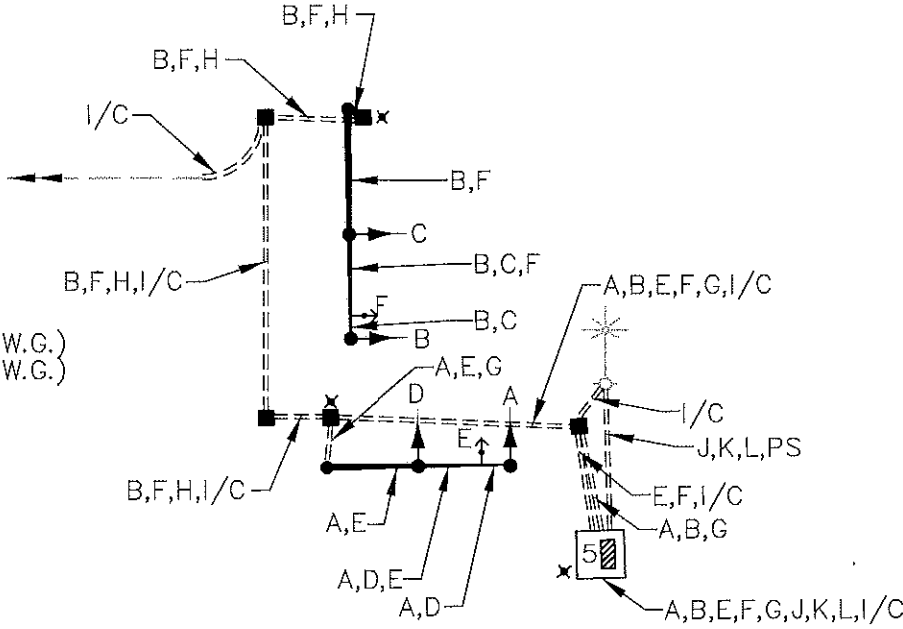


U.S. 40 West
(W. Franklin St.)

WIRING DIAGRAM

WIRING LEGEND

- A - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- B - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- C - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- D - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- E - 3M OPTICOM DETECTOR CABLE, MODEL 138
- F - 3M OPTICOM DETECTOR CABLE, MODEL 138
- G - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- H - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- J - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- K - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- L - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
- X - 3/4"x10' GROUND ROD
- PS - PROPOSED ELECTRICAL SERVICE
- I/C - INTERCONNECT CABLE



INTERSECTION DESCRIPTION

I. GENERAL

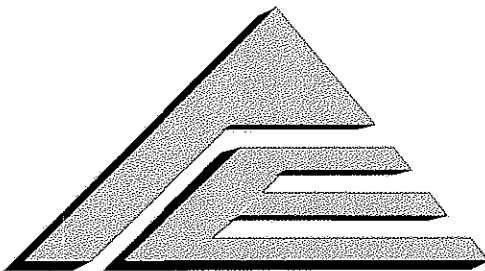
THIS INTERSECTION IS U.S. 40 WEST (WEST FRANKLIN STREET) AND NORTH PROSPECT STREET. CONSTRUCTION AT THIS INTERSECTION INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AND INTERCONNECTION WITH THE OTHER SIGNALIZED INTERSECTIONS IN THE NEW CITY-WIDE SYSTEM. IT IS ASSUMED THAT U.S. 40 WEST (WEST FRANKLIN STREET) RUNS IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA TWO (2) PHASE PRE-TIMED MODE. WESTBOUND U.S. 40 WEST (WEST FRANKLIN STREET) AND SOUTHBOUND NORTH PROSPECT STREET WILL OPERATE IN SEPARATE PHASES.

PRE-EMPTION ON WESTBOUND U.S. 40 WEST (WEST FRANKLIN STREET) WILL CALL PRE-EMPTION A. PRE-EMPTION ON SOUTHBOUND NORTH PROSPECT STREET WILL CALL PRE-EMPTION B.

A NEW EIGHT PHASE FULLY ACTUATED CONTROLLER WITH TELEMETRY MODULE, AND PRE-EMPTION HOUSED IN A GROUND MOUNTED CABINET WILL BE INSTALLED.



A/E GROUP, INC.

ENGINEERS • PLANNERS

181 E. Main Street
Westminster, Maryland 21158
A/E Job No. 95-289

SIGNALS

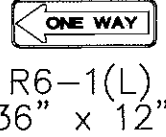
1,2,3,4



→ -- OPTICAL PRE-EMPTION DETECTOR EYE

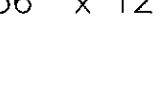
SIGNS

5,7



R6-1(L)
36" x 12"

8,11



R6-1(R)
36" x 12"

6

N. Prospect St

D3-2
Var. x 16"

9

NO
TURN
ON RED
R10-11b
24" x 24"

10

W. Franklin St

D3-2
Var. x 16"

CONSTRUCTION DETAILS

INSTALL 21' STEEL POLE, 32' MAST ARM, SIGNAL HEADS, SIGNS AND OPTICOM DETECTOR (NOTE: 1-2", 90-DEGREE P.V.C. BEND).

INSTALL 21' STEEL POLE, 42' MAST ARM, SIGNAL HEADS, SIGNS AND OPTICOM DETECTOR (NOTE: 1-2", 90-DEGREE P.V.C. BEND).

INSTALL GROUND MOUNTED SIGN.

INSTALL BASE-MOUNTED CABINET, SIZE #5, AND CONTROLLER WITH ALL NECESSARY EQUIPMENT AS SHOWN (NOTE: 2-4", 90-DEGREE P.V.C. BENDS; AND, 2-2", 90-DEGREE P.V.C. BENDS.)

INSTALL HANDHOLE.

INSTALL 3" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (TRENCHED) CONNECT TO EXISTING CONDUIT.

INSTALL 2" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (SLOTTED).

INSTALL 4" P.V.C. (SCHEDULE 40) ELECTRICAL CONDUIT (TRENCHED).

INSTALL 2" P.V.C. (SCHEDULE 40) ELECTRICAL CONDUIT (TRENCHED).

INSTALL 2" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT -- RISER AND 2" WEATHERHEAD.

INSTALL 10' OF 2" P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT -- RISER AND COIL 25' OF ADDITIONAL CABLE.

REMOVE EXISTING STOP BAR.

INSTALL 24" SOLID WHITE LINE.

REMOVE EXISTING OPTICOM DETECTOR.

REMOVE EXISTING STEEL POLE, MAST ARM, SIGNALS, SIGNS, CABINET, CONTROLLER AND FOUNDATION.

REMOVE EXISTING STEEL POLE, MAST ARM, SIGNALS, SIGNS, AND FOUNDATION.

REMOVE AND REPLACE EXISTING SIDEWALK.

CONSTRUCT SIDEWALK RAMP.

UTILITY LEGEND

- G --- G --- GAS MAIN
- W --- W --- WATER MAIN
- S --- S --- SEWER MAIN
- ===== STORM DRAIN
- TV --- TV --- CABLE TELEVISION
- E --- E --- ELECTRIC CABLES
- T --- T --- TELEPHONE CABLES
- A --- A --- AERIAL CABLES